

ABSTRACT OF THE DISCLOSURE

A high voltage semiconductor device, having a first layer of semiconductor material, a current localization region, a second layer of semiconductor material and a third layer of semiconductor material, is utilized to improve the electrical characteristics of the device by reducing the thickness of the second layer. The reduction of the thickness of the second layer provides for a reduction in edge failures as compared to prior art. The reduced thickness of the second layer also provides for a reduction in forward voltage drop across the device. The reduced thickness of the second layer also results in a reduced dynamic impedance of the device.